

**REMARKS**

The drawings have been objected to due to informalities. The drawings (figures 1 and 3) have been amended as indicated in the attached.

Claim 5 has been rejected under 35 USC 112, second paragraph. Claim 5 has been amended to improve clarity.

Claims 1-9 have been rejected under 35 USC 102(b) as anticipated by Tazawa. The rejection is respectfully traversed.

In *Response to Arguments* on page 6, paragraph 18 of the Office Action, the Examiner states, with respect to claim 1, that the “Tazawa reference clearly shows this [the final position] limitation since the coil current is measured at To, at which time no current is being supplied to the coil, to obtain a reference measurement (Column 5, lines 44-61).” Claim 1 has been amended to incorporate the limitations of claim 3. In this regard, the Examiner refers to Figures 6A-6C of Tazawa as disclosing these limitations. Applicant respectfully disagrees.

In Tazawa, there is a single coil and there is no link between the “final position” of the actuator and the arrangement of coils. The claimed invention, on the other hand, requires “the actuator has two coils respectively assigned to the final position.”

With respect to claim 5, the Examiner comments that “the newly added limitation of ‘which is a component of the actuator’ fails to particularly point out what it is directed towards it [sic] clearly subject to multiple interpretations.” Again, Applicant’s respectfully disagree.

Claim 5, however, has been amended to clarify that “at least one coil with a resistor connected in series into a supply line of the coil wherein at least one coil is a component of the actuator.” As stated in the previously filed amendment, amplifier 43c of Tazawa is attached to the coil 43a of the detection sensor 43 and not to the coil 12 of the injector.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no.449122021000. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: November 23, 2004

Respectfully submitted,

By 

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Attachments

**AMENDMENTS TO THE DRAWINGS**

The attached sheet(s) of drawings includes changes to Figures 1 and 3.

Attachment:      Replacement sheet  
                         Annotated sheet showing changes

Application No.: 10/049,865

8

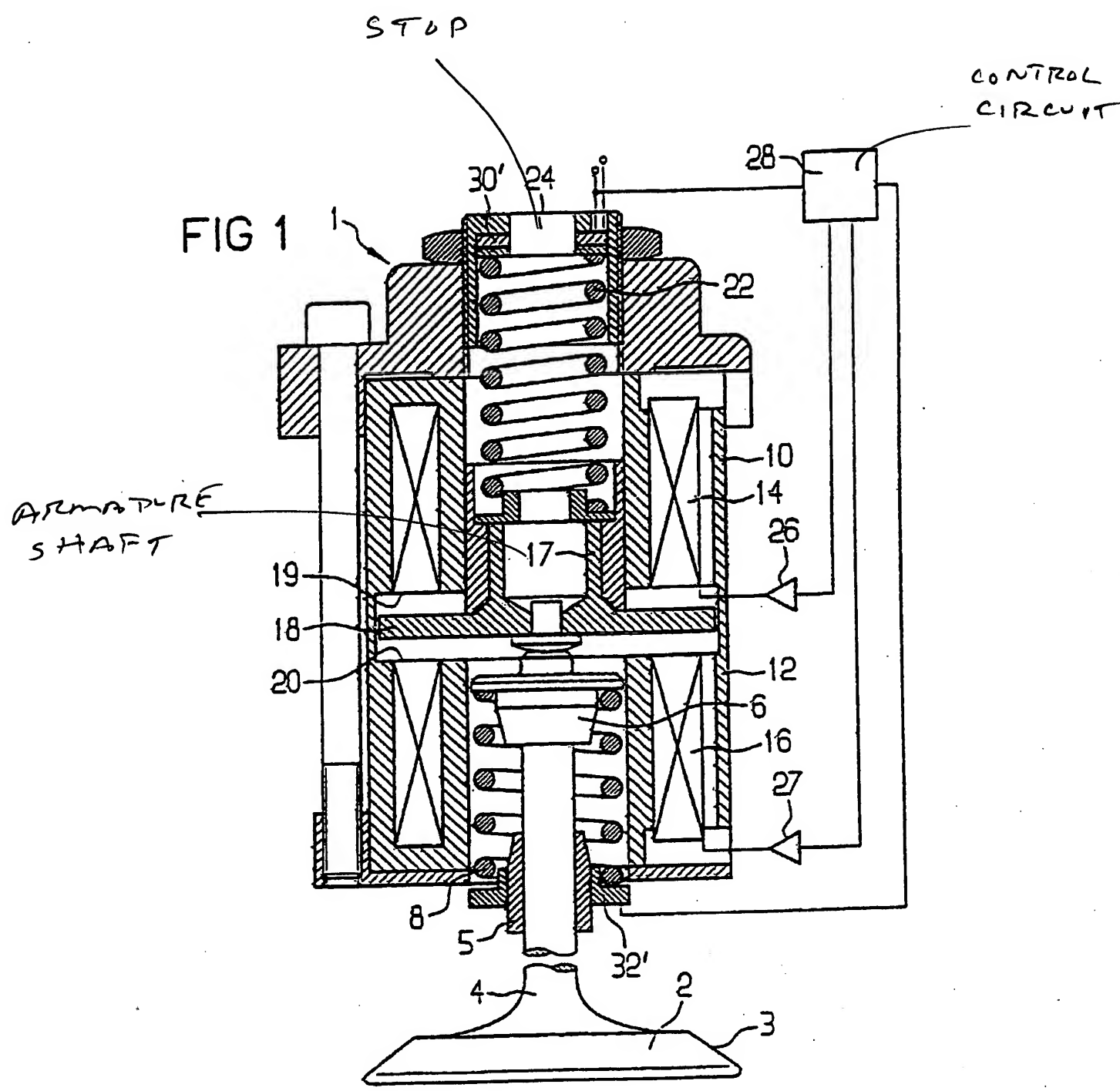
Docket No.: 449122021000

**REPLACEMENT SHEET**

**Remarks** begin on page 6 of this paper.

An **Appendix** including amended drawing figures is attached following page 7 of this paper.

**ANNOTATED SHEET SHOWING CHANGES**



ARMATURE

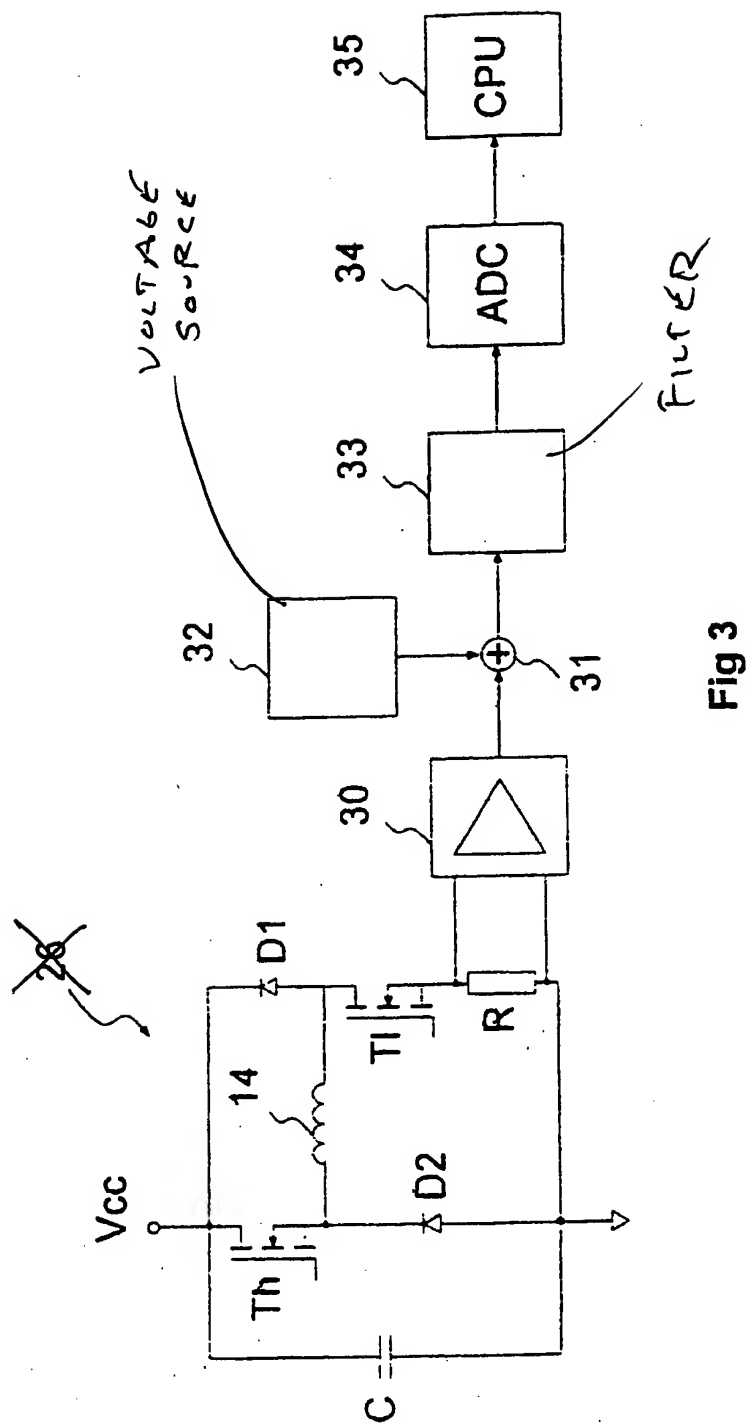


Fig 3

ANNOTATED